

REMARKS

The present Amendment amends claims 1-10, 12-14 and 17-19, leaves claim 16 unchanged, cancels claim 11 and adds new claims 20 and 21. Therefore, the present application has pending claims 1-10 and 12-21.

It appears that the Examiner has not considered the Information Disclosure Statement filed on March 19, 2001 along with the present application. A copy of the Form PTO-1449 which provided a listing of the reference filed as part of the Information Disclosure Statement on March 19, 2001 is attached. An indication that the reference cited therein has been considered is respectfully requested.

Applicants acknowledge the Examiner's indication in paragraph 11 of the Office Action that claim 19 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Amendments were made to claim 19 to place it in independent form including all the limitations of the base claim and any intervening claims.

Applicants note that with respect to claim 19 it depends from claim 17 which is a multiple dependent claim depending from claims 14 or 15. Thus, claim 19 was amended to include the limitations of claim 14 embodiment of claim 17. Further, new claim 21 was added that amends claim 19 to include the limitations of the claim 15 embodiment of claim 17. In the Office Action the Examiner apparently indicated that both embodiments of claim 19 are allowable. Accordingly, claims 19 and 21 are in condition for allowance as indicated by the Examiner.

Claim 4 stands objected to due to informalities noted by the Examiner in paragraph 1 of the Office Action. Amendments were made to claim 4 to correct the

informalities noted by the Examiner. Therefore, this objection is overcome and should be withdrawn.

Claims 7, 17 and 18 stand objected under 37 CFR §1.75(c) as being in improper form since it is a multiple dependent claim depending from another multiple dependent claim. Amendments were made to claims 7, 17 and 18 to make them dependent upon only other dependent claims, not multiple dependent claims. Therefore, this objection is overcome and should be withdrawn.

Claims 8 and 10 stand rejected under 35 USC §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention. Various amendments were made throughout claims 8 and 10 to bring them into conformity with the requirements of 35 USC §112, second paragraph. Therefore, Applicants submit that this rejection is overcome and should be withdrawn.

Specifically, amendments were made to claims 8 and 10 to overcome the objections noted by the Examiner in paragraph 4 of the Office Action.

The Examiner's cooperation is respectfully requested to contact Applicants' Attorney by telephone should any further indefinite matters be discovered so that appropriate amendments may be made.

Claims 1-5, 8, 11 and 12 stand rejected under 35 USC §102(b) as being anticipated by Linneweh (U.S. Patent No. 5,862,485); claims 6 and 14-16 stand rejected under 35 USC §103(a) as being unpatentable over Linneweh in view of Jetzek (U.S. Patent No. 6,539,227); claim 9 stands rejected under 35 USC §103(a) as being unpatentable over Linneweh in view of Hughes (U.S. Patent No.

6,704,577); and claim 13 stands rejected under 35 USC §103(a) as being unpatentable over Linneweh. As indicated above, claim 11 was canceled.

Therefore, the above noted rejection of claim 11 under 35 USC §102(b) is rendered moot. Accordingly, reconsideration and withdrawal of this rejection with respect to claim 11 is respectfully requested. These rejections with respect to the remaining claims 1-10 and 12-18 are traversed for the following reasons. Applicants submit that the features of the present invention as now more clearly recited in claims 1-10 and 12-18 are not taught or suggested by Linneweh, Jetzek and Hughes whether taken individually or in combination with each other as suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw these rejections.

Amendments were made to claim 1 from which claims 2-10 depend so as to more clearly recite that the present invention is directed to base station for assigning a radio communication resource by scheduling time slots to mobile stations for data communication. According to the present invention, the base station includes transmission and reception means for conducting communication with base stations and control means for assigning a time slot preferentially to a first mobile station that needs to communicate with the base station for a first application that is given higher priority over a second mobile station that needs to communicate with the base station for a second application that is given a lower priority lower than said higher priority given to said first application.

The features of the present invention now more clearly recited in the claims are supported according to the following. "Data communication" is discussed in the

Summary of the Invention section of the present application particularly paragraphs [0005] – [0006]. The “scheduling time slots to mobile stations” is disclosed, for example, in Figs. 2 and 7 of the present application and in paragraphs [0027] – [0030] and paragraphs [0047] – [0048]. The “assigning a time slot preferentially to a first mobile station with higher priority over a second mobile station with lower priority” is disclosed, for example, in Steps 705 and 904 of Figs. 7 and 9 respectively.

The above described features of the present invention now more clearly recited in claims 1-10 are not taught or suggested by Linneweh, Jetzek or Hughes whether taken individually or in combination with each other as suggested by the Examiner.

As is quite clear from the above, the present invention is concerned with data communication by scheduling time slots for each mobile station. According to the present invention with data communication, the scheduling can be done time slot by time slot since unlike voice calls the requirement for minimizing time delay between time slots having different data does not need to be met. Thus, the present invention can provide for data communications to be optimized in a manner so as to take full advantage of the available resources. By such processing, the present invention is able to provide a particular mobile station operating a specific application with higher priority in data communications relative to another mobile station operating another application which has lower priority relative to the higher priority. These features of the present invention as recited in the claims are clearly not taught or suggested by any of the references of record whether taken individually or in combination with

each other. Particularly, these features are not taught or suggested by Linneweh, Jetzek or Hughes.

Linneweh teaches a system that reserves communication resources for priority calls. According to Linneweh the reserved communication resources are for a "line connection". A line connection is a connection exclusively used for the duration of an entire call. This teaching of Linneweh is necessary since voice calls, as oppose to data communications, are conducted across the same line connection. Thus, in Linneweh, since voice calls are being conducted across the line connection, it is not possible for non-priority calls to be placed on hold in the middle of a call so as to put a priority call on the same line connection in order for Linneweh to be equivalent to the present invention. Thus, it is not the intent of the apparatus and method taught by Linneweh to ensure that a priority call is always able to be assigned to communication resources quickly, namely by interrupting a lower priority call already in process so as to allow a call to be conducted of higher priority.

Thus, Linneweh fails to teach or suggest control means for assigning a time slot preferentially to a first mobile station that needs to communicate with the base station for a first application that is given a higher priority over a second mobile station that needs to communicate with the base station for a second application that is given a lower priority lower than the higher priority given the first application as recited in the claims.

Therefore, Linneweh fails to teach or suggest the features of the present invention as now more clearly recited in claims 1-10. Accordingly, reconsideration

and withdrawal of the 35 USC §102(b) rejection of claims 1-5 and 8 as being anticipated by Linneweh is respectfully requested.

The above noted deficiencies of Linneweh are not supplied by any of the other references of record. Therefore, combining the teachings of Linneweh with one or more of Jetzek and Hughes still fails to teach or suggest the features of the present invention as now more clearly recited in the claims.

Jetzek merely teaches a process for performing handoff and Hughes merely teaches the use of a paging channel. However, at no point is there any teaching in either Jetzek or Hughes of performing data communications by scheduling such data communications according to time slots using priority based scheduling according to the priority given to particular types of applications as in the present invention as recited in the claims.

Thus, both Jetzek and Hughes fail to teach or suggest control means for assigning a time slot preferentially to a first mobile station that needs to communicate with the base station for a first application that is given a higher priority over a second mobile station that needs to communicate with the base station for a second application that is given a lower priority lower than the higher priority given the first application as recited in the claims.

Therefore, the features of the present invention shown above not to be taught or suggested by Linneweh are also not taught or suggested by Jetzek and Hughes. Accordingly, reconsideration and withdrawal of the 35 USC §103(a) rejection of claim 6 as being unpatentable over Linneweh in view of Jetzek, and the 35 USC §103(a)

rejection of claim 9 as being unpatentable over Linneweh in view of Hughes is respectfully requested.

As per the above, claim 11 was canceled and claim 12 was amended to be in independent form including all the limitations of the base claim and any intervening claims. Particularly, amendments were made to claim 12 to clarify that data communication is performed between one mobile station and one base station using at least two radio communication channels of a plurality of radio communication channels. According to claim 12, a control means is provided for handling data transmission/reception over a plurality of radio communication channels in parallel including additional channels when it is notified that additional channels are assigned to it from the base station. Thus, the present invention is intended to make use of the resources available for performing communication and since the communications are data communications the data can be sent across plural channels without effecting the quality of the communication.

Linneweh discloses reserving communication resources at alternate base stations in anticipation of a handoff of a call. The Examiner's attention is directed to col. 4, lines 2-7 of Linneweh. Thus, Linneweh clearly indicates that the reserved extra resources are not actually used for a current communication while the original resource is in use. The present invention differs substantially from that taught by Linneweh being that the present invention is intended conduct the data communication across plural radio communication channels and the use of such plural radio communication channels is performed in parallel. No such features are possible in Linneweh.

The above noted deficiencies of Linneweh are also evident in Jetzek and Hughes. Therefore, combining the teachings of Linneweh with one or more of Jetzek and Hughes still fails to teach or suggest the features of the present invention as now more clearly recited in the claims.

Therefore, Linneweh whether taken individually or in combination with one or more of Jetzek and Hughes still fails to teach or suggest the features of the present invention as recited in claims 12-18. Accordingly, reconsideration and withdrawal of the 35 USC §102(b) rejection of claims 11 and 12 as being anticipated by Linneweh, the 35 USC §103(a) rejection of claims 14-16 as being unpatentable over Linneweh in view of Jetzek and the 35 USC §103(a) rejection of claim 13 as being unpatentable over Linneweh is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claims 1-18.

In view of the foregoing amendments and remarks, applicants submit that claims 1-10 and 12-21 are in condition for allowance. Accordingly, early allowance of claims 1-10 and 12-21 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (501.39856X00).

Respectfully submitted,

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